

#### **GOVERNMENT DOCUMENTS:**

### A LOW CARBON FUEL STANDARD: STATE AND FEDERAL LEGISLATION AND REGULATIONS

Brent D. Yacobucci. Congressional Research Service (CRS). December 23, 2008. 15 pages. http://assets.opencrs.com/rpts/RL40078 20081223.pdf

On January 18, 2007, California Governor Arnold Schwarzenegger issued an executive order directing the California Environmental Protection Agency to establish a Low Carbon Fuel Standard (LCFS). The California LCFS would require a 10% reduction in the carbon intensity of fuels in the State of California by 2020. It would require fuel suppliers to reduce the expected lifecycle greenhouse gas emissions from motor fuels, based on fuels' energy content. In this way, the greenhouse gas intensity of transportation fuels would decrease, regardless of the growth in transportation or fuel demand. While California has not formally proposed regulations, the state Air Resources Board has released drafts of possible regulations. The development of California's rules could inform policymakers looking to establish a federal LCFS. The scope of a federal program, however, requiring compliance nationwide, would likely affect the fuel system in ways not comparable to California's experience. If more low-carbon fuel is needed in California, supply can be shifted from other parts of the country not under an LCFS. If more low-carbon fuel is needed nationwide, higher production and/or imports would be necessary. If the requirements of a low carbon fuel standard get ahead of the necessary supply, conventional fuel supply would need to be curtailed, or the program would need to be delayed. It is likely that the proposals with later time frames would be less disruptive to the fuel supply.

## A U.S.-CENTRIC CHRONOLOGY OF THE INTERNATIONAL CLIMATE CHANGE NEGOTIATIONS

Jane A. Leggett. Congressional Research Service (CRS). December 23, 2008. 11 pages. <a href="http://assets.opencrs.com/rpts/R40001\_20081223.pdf">http://assets.opencrs.com/rpts/R40001\_20081223.pdf</a>

Under the "Bali Action Plan," countries around the globe are endeavoring to reach agreement by the end of 2009 on effective, feasible, and fair actions beyond 2012 to address risks of climate change driven by human-related emissions of greenhouse gases (GHG). This document provides a U.S.-centric chronology of the international policy negotiations to address climate change. It begins before agreement on the United Nations Framework Convention on Climate Change in 1992, and proceeds through the Kyoto Protocol in 1997, the Marrakesh Accords of 2001, and the Bali Action Plan of 2007 that mandates the current negotiations. This chronology identifies selected external events and major multilateral meetings that have influenced the current legal and institutional arrangements, as well as contentious issues for further cooperation.

### ENDANGERED SPECIES ACT: MANY GAO RECOMMENDATIONS HAVE BEEN IMPLEMENTED, BUT SOME ISSUES REMAIN UNRESOLVED

Government Accountability Office (GAO). Report to Congressional Requesters. December 19, 2008. 27 pages.

### http://www.gao.gov/new.items/d09225r.pdf

The Endangered Species Act (ESA) of 1973 protects plant and animal species that are either facing extinction (endangered species) or are likely to face extinction in the foreseeable future (threatened species) and protects the ecosystems upon which they depend. The act includes provisions for listing species that need protection, designating habitat deemed critical to a listed species' survival, developing recovery plans, and protecting listed species against certain harms caused by federal and nonfederal actions. Since the act's inception, more than 1,300 species occurring in the United States or its territories have been placed on the list of threatened and endangered species. Over the last 10 years, GAO has reported on many of the major program areas of the ESA -- listing, critical habitat, recovery, and the consultation process by which federal agencies ensure that their actions do not cause certain harms to listed species -- and has made a number of recommendations for improvements. This report discusses recommendations that have been implemented and those that have not.

### CLIMATE CHANGE: FEDERAL LAWS AND POLICIES RELATED TO GREENHOUSE GAS REDUCTIONS

Brent D. Yacobucci and Larry Parker. Congressional Research Service (CRS). December 8, 2008. 19 pages.

### http://assets.opencrs.com/rpts/RL31931\_20081208.pdf

Climate change is viewed as a global issue, but proposed responses generally require action at the national level. In 1992, the United States ratified the United Nations Framework Convention on Climate Change (UNFCCC), which called on industrialized countries to take the lead in reducing greenhouse gases. Over the past 16 years, a variety of voluntary and regulatory actions have been proposed or undertaken in the United States, including monitoring of electric utility carbon dioxide emissions, improved appliance efficiency, and incentives for developing renewable energy sources. This report provides background on the evolution of U.S. climate change policy, from ratification of the UNFCCC to the George W. Bush Administration's 2001 rejection of the Kyoto Protocol to the present. Recent federal court decisions -- most notably the Supreme Court's 2007 decision in Massachusetts v. EPA that the Environmental Protection Agency has the authority to regulate motor vehicle greenhouse gas emissions under the Clean Air Act -- have raised the issue of whether EPA should directly regulate greenhouse gases. This report focuses on major regulatory programs that monitor or reduce greenhouse gas emissions, along with their estimated effect on emissions levels.

NATIONAL MARINE FISHERIES SERVICE: IMPROVEMENTS ARE NEEDED IN THE FEDERAL PROCESS USED TO PROTECT MARINE MAMMALS FROM COMMERCIAL FISHING Government Accountability Office (GAO). Report to the Chairman, Committee on Natural Resources, U.S. House of Representatives. December 8, 2008. 60 pages. http://www.gao.gov/new.items/d0978.pdf

Because marine mammals, such as whales and dolphins, often inhabit waters where commercial fishing occurs, they can become entangled in fishing gear, which may injure or kill them -- this is referred to as "incidental take." The 1994 amendments to the Marine Mammal Protection Act (MMPA) require the National Marine Fisheries Service (NMFS) to establish take reduction teams for certain marine mammals to develop measures to reduce their incidental takes. GAO was asked to determine the extent to which

NMFS can accurately identify the marine mammal stocks -- generally a population of animals of the same species located in a common area -- that meet the MMPA's requirements for establishing such teams, has established teams for those stocks that meet the requirements, has met the MMPA's deadlines for the teams subject to them, and evaluates the effectiveness of take reduction regulations.

# CLIMATE CHANGE: ACTION BY STATES TO ADDRESS GREENHOUSE GAS EMISSIONS Jonathan L. Ramseur. Congressional Research Service (CRS). December 4, 2008. 31 pages. <a href="http://assets.opencrs.com/rpts/RL33812\_20081204.pdf">http://assets.opencrs.com/rpts/RL33812\_20081204.pdf</a>

In the absence of a federal climate change program, a number of states have taken actions that directly address greenhouse gas (GHG) emissions. States' efforts cover a wide range of policies. Although much of the early activity was largely symbolic, the more recent state actions have been more aggressive. Predicting the precise consequences of the state-led climate change actions, however, is difficult. Some actions, particularly the mandatory emission reductions, may create economic effects, especially in the automotive manufacturing and electricity-generating sectors. Industry stakeholders are especially concerned that the states will create a patchwork of climate change regulations across the nation. This prospect is causing some industry leaders to call for a federal climate change program. If Congress seeks to establish a federal program, the experiences and lessons learned in the states may be instructive. Moreover, although some states are taking aggressive action, their possible emission reductions may be offset by increased emissions in states without mandatory reduction requirements. This is perhaps the central limitation of state climate change programs in actually affecting total greenhouse gas emissions. Legal challenges represent another obstacle for state programs, particularly for the more aggressive, mandatory programs.

### A U.S.-CENTRIC CHRONOLOGY OF THE INTERNATIONAL CLIMATE CHANGE NEGOTIATIONS

Jane A. Leggett. Congressional Research Service (CRS). December 1, 2008. 11 pages. <a href="http://fpc.state.gov/documents/organization/113563.pdf">http://fpc.state.gov/documents/organization/113563.pdf</a> (Tip: copy and paste in your browser) Under the "Bali Action Plan," countries around the globe are endeavoring to reach agreement by the end of 2009 on effective, feasible, and fair actions beyond 2012 to address risks of climate change driven by human-related emissions of greenhouse gases (GHG). This document provides a U.S.-centric chronology of the international policy negotiations to address climate change. It begins before agreement on the United Nations Framework Convention on Climate Change in 1992, and proceeds through the Kyoto Protocol in 1997, the Marrakesh Accords of 2001, and the Bali Action Plan of 2007 that mandates the current negotiations. This chronology identifies selected external events and major multilateral meetings that have influenced the current legal and institutional arrangements, as well as contentious issues for further cooperation.

#### EMISSIONS OF GREENHOUSE GASES IN THE UNITED STATES 2007

Office of Integrated Analysis and Forecasting. Energy Information Administration (EIA). U.S. Department of Energy. December 2008. 64 pages.

ftp://ftp.eia.doe.gov/pub/oiaf/1605/cdrom/pdf/ggrpt/057307.pdf

This report presents the Energy Information Administration's latest estimates of emissions for carbon dioxide, methane, nitrous oxide, and other greenhouse gases. Total U.S. greenhouse gas emissions in 2007 were 1.4 percent above the 2006 total. The increase in U.S. carbon dioxide emissions in 2007 resulted primarily from two factors, unfavorable weather conditions, which increased demand for heating

and cooling in buildings, as well as a drop in hydropower availability that led to greater reliance on fossil energy sources (coal and natural gas) for electricity generation, increasing the carbon intensity of the power supply.

#### UNITED STATES CLIMATE CHANGE ACTION

Bureau of Oceans, Environment, and Science (OES). U.S. Department of State. December 2008. 22 pages.

http://www.state.gov/documents/organization/112549.pdf

This report details some of the specific results the United States has achieved in addressing climate change over the last eight years. Internationally, the United States has launched or participates in dozens of partnerships that span a wide range of initiatives from developing transformational low-carbon technologies to improving observations systems that will help better understand and address the possible impacts of climate change. Domestically, it has implemented policies ranging from setting an economy-wide greenhouse gas intensity target to mandating sectoral actions through the Energy Independence and Security Act of 2007 (EISA) and the U.S. mid-term greenhouse gas emissions goal.

#### ABRUPT CLIMATE CHANGE

U.S. Climate Change Science Program (CCSP). December 2008. 477 pages. <a href="http://downloads.climatescience.gov/sap/sap3-4/sap3-4-final-report-all.pdf">http://downloads.climatescience.gov/sap/sap3-4/sap3-4-final-report-all.pdf</a>

This report considers progress in understanding four types of abrupt change in the paleoclimatic record that stand out as being so rapid and large in their impact that if they were to recur, they would pose clear risks to society in terms of our ability to adapt: rapid change in glaciers, ice sheets, and hence sea level; widespread and sustained changes to the hydrologic cycle; abrupt change in the northward flow of warm, salty water in the upper layers of the Atlantic Ocean associated with the Atlantic Meridional Overturning Circulation (AMOC); and rapid release to the atmosphere of methane trapped in permafrost and on continental margins.

# REANALYSIS OF HISTORICAL CLIMATE DATA FOR KEY ATMOSPHERIC FEATURES: IMPLICATIONS FOR ATTRIBUTION OF CAUSES OF OBSERVED CHANGE

U.S. Climate Change Science Program (CCSP). December 2008. 156 pages.

http://downloads.climatescience.gov/sap/sap1-3/sap1-3-final-all.pdf

This report addresses current capabilities to integrate observations of the climate system into a consistent description of past and current conditions through the method of reanalysis. In addition, it assesses present capabilities to attribute causes for climate variations and trends over North America during the reanalysis period, which extends from the mid-twentieth century to the present.

### GREENHOUSE GAS EMISSIONS: PERSPECTIVES ON THE TOP 20 EMITTERS AND DEVELOPED VERSUS DEVELOPING NATIONS

Larry Parker and John Blodgett. Congressional Research Service (CRS). November 28, 2008. 22 pages. <a href="http://fpc.state.gov/documents/organization/113569.pdf">http://fpc.state.gov/documents/organization/113569.pdf</a> (Tip: copy and paste in your browser) Using the World Resources Institute (WRI) database on greenhouse gas emissions and related data, this report examines two issues. The first issue is the separate treatment of developed and developing nations under the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. This distinction has been a pivotal issue affecting U.S. climate change policy. The second

issue is the continuing difficulty of the current approach designed to address climate change through limiting greenhouse gas emissions to a specified percentage of baseline emissions (typically 1990). The data permit examination of alternative approaches, such as focusing on per capita emissions or the greenhouse gas emission intensity (measured as emissions per unit of economic activity).

#### GLOBAL CLIMATE CHANGE: THREE POLICY PERSPECTIVES

Larry Parker and John Blodgett. Congressional Research Service (CRS). November 26, 2008. 37 pages. <a href="http://fpc.state.gov/documents/organization/113570.pdf">http://fpc.state.gov/documents/organization/113570.pdf</a> (Tip: copy and paste in your browser)

The 1992 U.N. Framework Convention on Climate Change requires that signatories, including the United States, establish policies for constraining future emission levels of greenhouse gases, including carbon dioxide (CO2). The George H. W. Bush, Clinton, and George W. Bush Administrations each drafted action plans in response to requirements of the convention. These plans have raised significant controversy and debate. This debate intensified following the 1997 Kyoto Agreement. This paper examines three starting points from which a U.S. response to the convention is being framed. These starting points, or policy "lenses," lead to divergent perceptions of the issue with respect to uncertainty, urgency, costs, and government roles. They also imply differing but overlapping processes and actions for possible implementation, thus shaping recommendations of policy advocates concerning the federal government's role in reducing greenhouse gases.

ORGANIC AGRICULTURE IN THE UNITED STATES: PROGRAM AND POLICY ISSUES Renée Johnson. Congressional Research Service (CRS). November 25, 2008. 13 pages. <a href="http://fpc.state.gov/documents/organization/113547.pdf">http://fpc.state.gov/documents/organization/113547.pdf</a> (Tip: copy and paste in your browser) Congress passed the Organic Foods Production Act (OFPA) in 1990 as part of a larger law governing U.S. Department of Agriculture (USDA) programs from 1990 through 1996 (P.L. 101-624, the Food, Agriculture, Conservation, and Trade Act of 1990). The act authorized the creation of a National Organic Program (NOP) within USDA to establish standards for producers and processors of organic foods, and permit such operations to label their products with a "USDA Organic" seal after being officially certified by USDA-accredited agents. The new omnibus law that will govern USDA programs and policies through FY2012 (P.L. 110-246; the Food, Conservation, and Energy Act of 2008) contains several provisions affecting organic agriculture and the NOP.

### CLIMATE CHANGE AND THE EU EMISSIONS TRADING SCHEME (ETS): KYOTO AND BEYOND

Larry Parker. Congressional Research Service (CRS). November 24, 2008. 32 pages. <a href="http://fpc.state.gov/documents/organization/113566.pdf">http://fpc.state.gov/documents/organization/113566.pdf</a> (Tip: copy and paste in your browser) The European Union's (EU) Emissions Trading Scheme (ETS) is a cornerstone of the EU's efforts to meet its obligation under the Kyoto Protocol. It covers more than 10,000 energy intensive facilities across the 27 EU Member countries; covered entities emit about 45% of the EU's carbon dioxide emissions. A "Phase 1" trading period began January 1, 2005. A second, Phase 2, trading period began in 2008, covering the period of the Kyoto Protocol, with a Phase 3 proposed for 2013. The United States is not a party to Kyoto. However, almost four years of carbon emissions trading has given the EU valuable experience in designing and operating a greenhouse gas trading system. This experience may provide some insight into cap-and-trade design issues currently being debated in the United States.

### CLIMATE CHANGE: DESIGN APPROACHES FOR A GREENHOUSE GAS REDUCTION PROGRAM

Larry Parker. Congressional Research Service (CRS). November 24, 2008. 30 pages. <a href="http://fpc.state.gov/documents/organization/113567.pdf">http://fpc.state.gov/documents/organization/113567.pdf</a> (Tip: copy and paste in your browser) Two events provide impetus for revisiting the cost issue with respect to designing a greenhouse gas reduction program. The first is the election of a new President publicly committed to substantial reductions in greenhouse gases over the next several decades. The second was passage of the 2005 Sense of the Senate climate change resolution calling on the Congress to enact a mandatory, market-based program to slow, stop, and reverse the growth of greenhouse gases, and which states that the program should be enacted at a rate and in a manner that "will not significantly harm the United States economy" and "will encourage comparable action" by other nations. Facets of the cost issue that have raised concern include absolute costs to the economy, distribution of costs across industries, competitive impact domestically and internationally, incentives for new technology, and uncertainty about possible costs.

### THE WORLD BANK'S CLEAN TECHNOLOGY FUND (CTF)

Martin A. Weiss and Jeffrey Logan. Congressional Research Service (CRS). November 24, 2008. 6 pages.

http://fpc.state.gov/documents/organization/113215.pdf (Tip: copy and paste in your browser) The United States Treasury has led efforts to create a \$10 billion Clean Technology Fund (CTF), located at the World Bank, to help fund deployment of clean technology to reduce greenhouse gas emissions in developing economies. The Bush administration has asked Congress to authorize and appropriate U.S. funding of \$2 billion over three years (FY2009 to FY2011). While many Members of Congress have expressed support for the CTF, others have raised concerns, primarily with respect to whether the CTF should finance carbon-based energy projects. To date, Congress has not passed legislation authorizing or appropriating U.S. contributions to the Fund.

### ARCTIC NATIONAL WILDLIFE REFUGE (ANWR): VOTES AND LEGISLATIVE ACTIONS, 95TH CONGRESS THROUGH 110TH CONGRESS

M. Lynne Corn and Beth A. Roberts. Congressional Research Service (CRS). November 19, 2008. 37 pages.

http://fpc.state.gov/documents/organization/112552.pdf (Tip: copy and paste in your browser)
A major part of the energy debate has been whether to approve energy development in the Arctic National Wildlife Refuge (ANWR) in northeastern Alaska, and if so, under what conditions, or whether to continue to prohibit development to protect the area's biological resources. ANWR is rich in fauna, flora, and commercial oil potential. Its development has been debated for more than 40 years, but increases in gasoline and natural gas prices, terrorist attacks, and infrastructure damage from hurricanes have intensified the debate. Current law forbids energy leasing in ANWR. This report provides a summary of legislative attempts to address issues of energy development and preservation in the Refuge from the 95th Congress through the 110th Congress, with emphasis on the 108th through 110th Congresses.

#### DRILLING IN THE GREAT LAKES: BACKGROUND AND ISSUES

Pervaze A. Sheikh and Adam Vann. Congressional Research Service (CRS). November 11, 2008. 24 pages.

http://fpc.state.gov/documents/organization/112526.pdf (Tip: copy and paste in your browser)

Drilling for oil and gas in or under the Great Lakes has generated interest among Great Lakes stakeholders, states, and Congress. Some opposed to drilling are concerned about the potential environmental, economic, and public health consequences. They contend that drilling will raise the risks of oil spills, hazardous gas leaks, and pollution that may harm lakeside residents and the Great Lakes ecosystem. Proponents of oil and gas drilling contend that drilling will increase local and regional tax revenues and employment, increase domestic energy production, and not be an environmental problem because of new technologies that lower the risks of oil spills and other accidents.

#### ENVIRONMENTAL ACTIVITIES OF THE U.S. COAST GUARD

Jonathan L. Ramseur. Congressional Research Service (CRS). November 3, 2008. 6 pages. <a href="http://fpc.state.gov/documents/organization/112412.pdf">http://fpc.state.gov/documents/organization/112412.pdf</a> (Tip: copy and paste in your browser) The U.S. Coast Guard's (USCG's) environmental activities focus on prevention programs, accompanied by enforcement and educational activities. An important component is maritime oil spill prevention, which includes inspection of U.S. and foreign-flagged ships to ensure compliance with U.S. laws and international agreements. As required by the Oil Pollution Act and the Superfund law, the USCG's pollution preparedness and response activities aim to reduce the impact of oil and hazardous substances spills. USCG's National Pollution Funds Center manages the Oil Spill Liability Trust Fund, paying certain spill-related costs and certifying that vessels show evidence of financial responsibility. Another prevention effort, minimizing marine debris, addresses commercial items (e.g., lost nets and fishing lines), as well as trash from recreational fishing and boating (e.g., beverage cans, bottles, and pieces of foam plastic).

# THE U.S. GOVERNMENT'S METHANE TO MARKETS PARTNERSHIP ACCOMPLISHMENTS: THIRD ANNUAL REPORT

Environmental Protection Agency (EPA). November 2008. 28 pages.

http://www.epa.gov/methanetomarkets/pdf/2008-accomplish-report/m2m08 usg report 08 scrnrez.pdf In 2004, the United States joined with 13 other countries to focus global attention on the importance of methane emissions by launching the Methane to Markets Partnership. Methane to Markets is a multilateral initiative uniting public and private interests to fight climate change by advancing the recovery and use of methane as a clean energy source. By engaging public and private sector partners, this initiative brings together the technical and market expertise, financing, and technology necessary for methane capture and use project development.

# INTERNATIONAL CLIMATE CHANGE PROGRAMS: LESSONS LEARNED FROM THE EUROPEAN UNION'S EMISSIONS TRADING SCHEME AND THE KYOTO PROTOCOL'S CLEAN DEVELOPMENT MECHANISM

Government Accountability Office (GAO). Report to Congressional Requesters. November 2008. 69 pages.

http://www.gao.gov/new.items/d09151.pdf

International policies to address climate change have largely relied on market-based programs. For example, under the European Union's Emissions Trading Scheme (ETS) phase I (2005 to 2007) carbon dioxide emissions reductions were sought by setting a cap on each member state's allowable emissions and distributing tradable allowances to covered entities, such as power plants. Beginning operation in 2002, the Kyoto Protocol's Clean Development Mechanism (CDM) has relied on offsets, allowing certain industrialized nations to pay for emission reduction projects in developing countries -- where the cost of

abatement may be less expensive -- in addition to reducing emissions within their borders. Legislative proposals to limit greenhouse gas emissions are under consideration in the United States. In this context, GAO was asked to examine the effects of and lessons learned from the ETS phase I and the CDM.

# GENETICALLY ENGINEERED CROPS: AGENCIES ARE PROPOSING CHANGES TO IMPROVE OVERSIGHT, BUT COULD TAKE ADDITIONAL STEPS TO ENHANCE COORDINATION AND MONITORING

Government Accountability Office (GAO). Report to the Committee on Agriculture, Nutrition, and Forestry, U.S. Senate. November 2008. 109 pages.

http://www.gao.gov/new.items/d0960.pdf

Genetically engineered (GE) crops -- including crops engineered to resist pests or tolerate herbicides -- are widespread in the United States and around the world. Taking direction from the 1986 Coordinated Framework for Regulation of Biotechnology, the U.S. Department of Agriculture (USDA), Environmental Protection Agency (EPA), and Food and Drug Administration (FDA) regulate GE crops to ensure that they are safe. The unauthorized mixing of some GE crops with non-GE crops has caused controversy and financial harm. GAO examined unauthorized releases of GE crops, coordination among the three agencies, and additional actions they have proposed to improve oversight.

# INTERNATIONAL ENVIRONMENTAL OVERSIGHT: U.S. AGENCIES FOLLOW CERTAIN PROCEDURES REQUIRED BY LAW, BUT HAVE LIMITED IMPACT

Government Accountability Office (GAO). Report to the Chairman, Committee on Foreign Relations, U.S. Senate. November 2008. 46 pages.

http://www.gao.gov/new.items/d0999.pdf

The World Bank Group lends about \$40 billion annually to developing countries. Critics have claimed that some projects have harmed the environment and the local population. Title XIII of the International Financial Institutions Act of 1977 outlines in part the U.S. government's requirements for reviewing potential environmental and social impacts of proposed multilateral development bank projects. GAO was asked to assess the U.S. government's international environmental oversight efforts by examining how U.S. agencies implement legislative requirements to review the potential environmental concerns associated with proposed World Bank Group projects, and agencies' ability to identify and address these concerns.

# AVIATION AND THE ENVIRONMENT: INITIAL VOLUNTARY AIRPORT LOW EMISSIONS PROGRAM PROJECTS REDUCE EMISSIONS, AND FAA PLANS TO ASSESS THE PROGRAM'S OVERALL PERFORMANCE AS PARTICIPATION INCREASES

Government Accountability Office (GAO). Report to Congressional Committees. November 2008. 32 pages.

#### http://www.gao.gov/new.items/d0937.pdf

In 2003, Congress established a program to reduce airport ground emissions at commercial service airports in areas failing to meet or maintain air quality standards. The Federal Aviation Administration (FAA) administers the Voluntary Airport Low Emissions (VALE) Program and oversees the program's two sources of funding: Airport Improvement Program (AIP) federal grants or Passenger Facility Charges (PFC), which airports can collect from passengers. Participating airports also receive credits for the emission reductions achieved through VALE projects in accordance with the law and guidance. Airports can use these credits to offset emissions resulting from development projects to comply with

federal Clean Air Act requirements. GAO was asked to determine how the VALE program has been implemented, including airport participation levels, types of projects, and program expenditures, and the outcomes attributable to the VALE program.

# DECISION SUPPORT EXPERIMENTS AND EVALUATIONS USING SEASONAL TO INTERANNUAL FORECASTS AND OBSERVATIONAL DATA

U.S. Climate Change Science Program (CCSP). November 2008. 208 pages.

http://downloads.climatescience.gov/sap/sap5-3/sap5-3-final-all.pdf

This report focuses on the connection between the scientific ability to predict climate on seasonal scales and the opportunity to incorporate such understanding into water resource management decisions. It directly addresses decision support experiments and evaluations that have used seasonal-to-interannual forecasts and observational data.

# TRENDS IN EMISSIONS OF OZONE-DEPLETING SUBSTANCES, OZONE LAYER RECOVERY, AND IMPLICATIONS FOR ULTRAVIOLET RADIATION EXPOSURE

U.S. Climate Change Science Program (CCSP). November 2008. 240 pages.

http://downloads.climatescience.gov/sap/sap2-4/sap2-4-final-all.pdf

This report addresses key issues related to the stratospheric ozone layer, including its changes in the past and expected levels in the future. It also takes account of the current abundances and emissions of ozone-depleting substances. Further, it synthesizes the best available information on the past and future levels of ultraviolet radiation at the Earth's surface. Lastly, it explores the interactions between climate change and stratospheric ozone changes. The discussion of these topics is carried out within the context of both the globe and the United States to distill a regional assessment from the global assessments.

#### CLIMATE CHANGE POLICY AND CO2 EMISSIONS FROM PASSENGER VEHICLES

Congressional Budget Office (CBO). Economic and Budget Issue Brief. October 6, 2008. 8 pages. http://www.cbo.gov/ftpdocs/98xx/doc9830/10-06-ClimateChange Brief.pdf

Human activities are producing increasingly large quantities of greenhouse gases, particularly carbon dioxide (CO2), and their accumulation in the atmosphere is expected to affect the climate throughout the world. This Congressional Budget Office issue brief examines the role of passenger vehicles (cars and light trucks) in the U.S. effort to curb those emissions. In particular, the brief looks at how putting a price on CO2 emissions -- for example, through a cap-and-trade system -- would affect gasoline prices and, as a consequence, vehicle emissions.

# FEDERAL RESEARCH AND DEVELOPMENT AGENDA FOR NET-ZERO ENERGY, HIGH-PERFORMANCE GREEN BUILDINGS

National Science and Technology Council. Committee on Technology. Report of the Subcommittee on Buildings Technology Research and Development. October 2008. 76 pages.

 $\underline{http://ostp.gov/galleries/NSTC\%20Reports/FederalRDAgendaforNetZeroEnergyHighPerformanceGreen}\\ \underline{Buildings.pdf}$ 

This document defines a research agenda for net-zero energy, high-performance green buildings. It describes the R&D objectives by which they are to be achieved. The goals and objectives focus on net-zero energy water and materials use, indoor environmental quality, performance measurements and

metrics, and barriers to the adoption of these new technologies by the buildings sector. The plan also includes a description of current federal programs in support of the research agenda.

# GREEN AFFORDABLE HOUSING: HUD HAS MADE PROGRESS IN PROMOTING GREEN BUILDING, BUT EXPANDING EFFORTS COULD HELP REDUCE ENERGY COSTS AND BENEFIT TENANTS

Government Accountability Office (GAO). Report to the Chairman, Subcommittee on Transportation, Housing and Urban Development, and Related Agencies, Committee on Appropriations, U.S. House of Representatives. October 2008. 68 pages.

http://www.gao.gov/new.items/d0946.pdf

Rising energy prices and concerns about the environment have fueled interest in "green building" -- resource-efficient construction and maintenance practices that reduce adverse impacts on the natural environment. The Department of Housing and Urban Development (HUD) spends an estimated \$5 billion on energy costs annually in its affordable housing programs and has recently taken steps to reduce its energy costs. GAO was asked to review HUD's efforts to promote energy efficiency in its programs and the use of performance measures, potential costs and long-term benefits of green building in HUD's affordable housing programs, and lessons learned elsewhere that HUD could use to promote green building.

# STATUS OF GSA'S IMPLEMENTATION OF SELECTED GREEN BUILDING PROVISIONS OF THE ENERGY INDEPENDENCE AND SECURITY ACT OF 2007

Government Accountability Office (GAO). October 2008. 6 pages.

http://www.gao.gov/new.items/d09111r.pdf

According to the U.S. Environmental Protection Agency (EPA), buildings in the United States account for 68 percent of the nation's total electricity consumption and 39 percent of its total energy consumption. In December 2007, Congress enacted the Energy Independence and Security Act of 2007 (EISA) to, among other things, increase energy efficiency and the availability of renewable energy in federal buildings. Specifically, the act established new energy-related requirements and standards for federal buildings and for the agencies that oversee them. For example, it required the General Services Administration (GSA) to establish an Office of Federal High-Performance Green Buildings to coordinate green building information and activities within GSA and with other federal agencies. The act also required GAO to report to Congress on the implementation of certain provisions contained in EISA by October 31, 2008, and October 31, 2009. As determined in consultation with Congressional offices, this report fulfills the 2008 requirement by addressing the status of GSA's implementation of selected EISA requirements related to high-performance federal green buildings.

### THINK TANKS AND RESEARCH CENTERS:

The opinions expressed in these publications do not necessarily reflect the views of the U.S. Government

# INTERNATIONAL TRADE IN USED DURABLE GOODS: THE ENVIRONMENTAL CONSEQUENCES OF NAFTA

Lucas W. Davis and Matthew E. Kahn. National Bureau of Economic Research (NBER). Working Paper No. 14565. December 2008. 46 pages.

### http://www.nber.org/papers/w14565.pdf

Previous studies of trade and the environment overwhelmingly focus on how trade affects where goods are produced. Trade, however, also affects where goods are consumed. In this paper the authors describe a model of trade with durable goods and non-homothetic preferences. In autarky, low-quality (used) goods are relatively inexpensive in high-income countries and free trade causes these goods to be exported to low-income countries. They then evaluate the environmental consequences of this pattern of trade using evidence from the North American Free Trade Agreement. Since trade restrictions were eliminated for used cars in 2005, over 2.5 million used cars have been exported from the United States to Mexico. The authors find that traded vehicles are dirtier than the stock of vehicles in the United States and cleaner than the stock in Mexico, so trade leads average vehicle emissions to decrease in both countries. Total greenhouse gas emissions increase, primarily because trade gives new life to vehicles that otherwise would have been scrapped.

# CLOSING THE MITIGATION GAP: THE CHALLENGE FACING A SHARED VISION FOR ACTION TO AVOID DANGEROUS CLIMATE CHANGE

Global Climate Network. Discussion Paper No. 1. December 2008. 10 pages.

http://www.americanprogress.org/issues/2008/12/pdf/gcn\_report.pdf

This paper describes perhaps the greatest policy challenge of our age: on the one hand, current proposals for 2020 emissions cuts in industrialized countries are insufficient to ensure that global reductions are kept on track for a halving or better by 2050. Yet on the other, developing countries are unlikely to accept the substantial costs associated with closing the resulting mitigation gap while their levels of wealth and per capita usage of energy are still comparatively low.

#### GREEN AFFORDABLE HOUSING: WITHIN OUR REACH

David M. Abromowitz. Center for American Progress. December 2008. 30 pages. http://www.americanprogress.org/issues/2008/12/pdf/green\_housing.pdf

The incoming Obama administration is poised to join with the 111th Congress on an ambitious agenda of reducing energy consumption, curbing greenhouse gas emissions, and creating a viable green jobs sector. To achieve these goals, one cannot afford to ignore housing, in particular the currently existing affordable housing. Affordable housing, consisting of almost 4.75 million apartments (nearly 14 percent of the nation's 35 million rental units), is federally assisted in some way and thus open to clearly targeted green policies.

OUTSIDE THE CAP: OPPORTUNITIES AND LIMITATIONS OF GREENHOUSE GAS OFFSETS Derik Broekhoff and Kathryn Zyla. World Resources Institute (WRI). Policy Series. December 2008. 12 pages.

http://pdf.wri.org/outside\_the\_cap.pdf

Carbon offset programs require the application of rigorous quantification, verification, and enforcement criteria in order to ensure that the integrity of greenhouse gas (GHG) caps is not compromised. Some types of climate change mitigation activities -- especially those involving soil or forest carbon sequestration -- are less likely to meet these criteria than others. It is possible to overcome these challenges, but doing so entails costs that might be avoided if these GHG reductions were achieved through other policies and measures. Deciding which types of GHG reductions to include in a carbon offset program should therefore be part of a broader strategy to achieve economy-wide GHG reductions at the lowest overall cost.

### COVERAGE OF NATURAL GAS EMISSIONS AND FLOWS UNDER A GREENHOUSE GAS CAPAND-TRADE PROGRAM

Joel Bluestein. The Pew Center on Global Climate Change. Solutions White Paper Series. December 2008. 36 pages.

http://www.pewclimate.org/docUploads/NaturalGasPointOfRegulation.pdf

Greenhouse gas (GHG) emissions associated with natural gas make up nearly 18 percent of total U.S. GHG emissions. Regulation of GHG emissions from the natural gas sector under a cap-and-trade program presents challenges different from those associated with coal or petroleum. This paper provides an overview of the different point-of-regulation options for covering greenhouse gas emissions from natural gas under a cap-and-trade program. The paper assesses the percentage of emissions covered under the different options and the type and number of entities and facilities regulated.

# PRICING STRATEGIES UNDER EMISSIONS TRADING: AN EXPERIMENTAL ANALYSIS Resources for the Future (RFF). Discussion Paper 08-49. December 2008. 34 pages. http://www.rff.org/RFF/Documents/RFF-DP-08-49.pdf

An important feature in the design of an emissions trading program is how emissions allowances are initially distributed into the market. In a competitive market the choice between an auction and free allocation should, according to economic theory, not have any influence on firms' production choices nor on consumer prices. Many observers, however, expect the method of allocation to affect product prices. This paper reports on the use of experimental methods to investigate behavior with respect to how prices will be determined under a cap-and-trade program.

### BAD WATER AND THE DECLINE OF BLUE CRABS IN THE CHESAPEAKE BAY Chesapeake Bay Foundation. December 2008. 24 pages.

http://www.cbf.org/site/DocServer/1229crab\_report.pdf?docID=13823

In 2007, watermen suffered the worst crab harvest since Bay-wide record keeping began in 1945. 2008 was even worse in Virginia, and only slightly better in Maryland. It is a matter of grave concern that the blue crab population has fallen to near record lows. Scientists say there are two causes of the problem: pollution and overfishing, especially of female blue crabs. This report describes the causes of the decline, and the actions needed to save the blue crab in the Chesapeake Bay.

#### PROTECTING AND DEVELOPING THE URBAN TREE CANOPY

The U.S. Conference of Mayors. December 2008. 39 pages.

http://www.usmayors.org/trees/treefinalreport2008.pdf

Trees make important contributions to society and are an integral part of urban infrastructure, as critical to the health and livability of communities as roads, sewers, and buildings. Community trees leverage the social, economic, and environmental value of cities, with forestry and related industries providing employment for over 1.6 million people and contributing \$231.5 billion to the U.S. economy. Mayors recognize the invaluable role of urban forests in the protection of public health and reduction of harmful greenhouse gases. And mayors have long appreciated the contributions of urban tree canopies to the sustainability and beautification goals they have established for their cities.

#### CONGRESSIONAL POLICY BRIEF SERIES

The Pew Center on Global Climate Change. November 2008.

http://www.pewclimate.org/DDCF-Briefs

These briefs are designed to walk policymakers through important design choices and the strengths and weaknesses of various policy approaches. Titles included in this series are: Greenhouse Gas Emission Reduction Timetables; Scope of a Greenhouse Gas Cap-and-Trade Program; Greenhouse Gas Emissions Allowance Allocation; Containing the Costs of Climate Policy; Greenhouse Gas Offsets in a Domestic Cap-and-Trade Program; Addressing Competitiveness in U.S. Climate Change Policy; Technology Policies to Address Climate Change; Addressing Emissions From Coal Use in Power Generation; Policies to Reduce Emissions from the Transportation Sector; and Tax Policies to Reduce Greenhouse Gas Emissions.

### RENEWING AMERICA: A BLUEPRINT FOR ECONOMIC RECOVERY

Environment America. November 2008. 29 pages.

 $\underline{http://www.environmentamerica.org/uploads/SO/o9/SOo90pehULc3juLoBFh4Yg/AME\ RenewAmerica.\underline{pdf}}$ 

This report makes the case that America has enough renewable potential to power America for the 21st century, protecting the environment while revitalizing the economy. It also points out that energy efficiency is one of America's largest untapped energy sources. It describes how, by adopting energy efficiency measures that pay for themselves in energy savings over time, homes, businesses and factories can cut their energy use by at least 25 percent.

### LOWERING THE COST OF PLAY: IMPROVING ENERGY EFFICIENCY OF VIDEO GAME CONSOLES

Natural Resources Defense Council (NRDC). Issue Paper. November 2008. 29 pages. <a href="http://www.nrdc.org/energy/consoles/files/consoles.pdf">http://www.nrdc.org/energy/consoles/files/consoles.pdf</a>

More than 40 percent of all homes in the United States contain at least one video game console. Video game consoles consumed an estimated 16 billion kilowatt-hours per year -- roughly equal to the annual electricity use of the city of San Diego. This issue paper provides recommendations for users, video game console manufacturers, component suppliers and the software companies that design games for improving the efficiency of video game consoles already in homes as well as future generations of machines.

#### IMPACT OF CARBON PRICE POLICIES ON U.S. INDUSTRY

Resources for the Future (RFF). Discussion Paper 08-37. November 2008. 97 pages. <a href="http://www.rff.org/RFF/Documents/RFF-DP-08-37.pdf">http://www.rff.org/RFF/Documents/RFF-DP-08-37.pdf</a>

This paper informs the discussion of carbon price policies by examining the potential for adverse impacts on domestic industries, with a focus on detailed sector-level analysis. The assumed policy scenario involves a unilateral economy-wide \$10/ton CO2 charge without accompanying border tax adjustments or other complementary policies. Four modeling approaches are developed as a proxy for the different time horizons over which firms can pass through added costs, change input mix, adopt new technologies, and reallocate capital.

#### PRICING URBAN CONGESTION

Resources for the Future (RFF). Discussion Paper 08-35. November 2008. 39 pages. <a href="http://www.rff.org/RFF/Documents/RFF-DP-08-35.pdf">http://www.rff.org/RFF/Documents/RFF-DP-08-35.pdf</a>

This paper reviews literature on the optimal design of pricing policies to reduce urban automobile congestion. The implications of a range of complicating factors are considered, such as traffic bottlenecks, constraints on which roads and freeway lanes in the road network can be priced, driver heterogeneity, private toll operators, other externalities besides congestion, and interactions between congestion taxes and the broader fiscal system.

#### PREPARING CALIFORNIA FOR A CHANGING CLIMATE

Louise Bedsworth and Ellen Hanak. Public Policy Institute of California (PPIC). November 2008. 28 pages.

http://www.ppic.org/content/pubs/report/R\_1108LBR.pdf

California has ambitious plans to cut greenhouse gas emissions. But the state also needs an integrated policy to prepare for -- and adapt to -- climate change. This report finds that some institutions, such as water agencies and electrical utilities, have already begun planning for change. But other areas have yet to prepare effectively for the challenges of a changing California.

# MORE VARIABLE AND UNCERTAIN WATER SUPPLY: GLOBAL WARMING'S WAKE-UP CALL FOR THE SOUTHEASTERN UNITED STATES

National Wildlife Federation. November 2008. 8 pages.

http://www.nwf.org/nwfwebadmin/binaryVault/NWF\_SEWaterSupply\_FINAL2.pdf

Until the last decade, the Southeast United States enjoyed about 40 years of relatively abundant water supplies, without major widespread drought. Yet, these conditions do not reflect the regular occurrence of periodic droughts evident in historic weather patterns. Now, global warming adds further uncertainty to the future of water in the Southeast, leading to more dry conditions, more heavy rainfall events, and an increasing threat of saltwater intrusion into freshwater systems as sea level rises.

FINANCING ADAPTATION: OPPORTUNITIES FOR INNOVATION AND EXPERIMENTATION Manish Bapna and Heather McGray. World Resources Institute (WRI). WRI Conference Paper. November 2008. 16 pages.

http://pdf.wri.org/financing adaptation.pdf

This paper explores the opportunities and challenges involved in financing adaptation efforts to climate change in developing countries. The last two years have seen a surge of interest in adaptation finance with new funding proposals floated on an almost weekly basis. But many critical questions remain. How much will adaptation cost? Which proposals are most likely to generate an adequate and predictable flow of funds? How should these funds be channeled so that they reach those most in need?

# RATTLING SUPPLY CHAINS: THE EFFECT OF ENVIRONMENTAL TRENDS ON INPUT COSTS FOR THE FAST-MOVING CONSUMER GOODS INDUSTRY

World Resources Institute (WRI). November 2008. 42 pages.

http://pdf.wri.org/rattling\_supply\_chains.pdf

This report develops a future scenario -- named "Ecoflation" -- in which policies and natural resource constraints force firms to add environmental costs to the costs of doing business. It estimates a 13-31 percent reduction in earnings before interest and taxes (EBIT) by 2013 and 19-47 percent in 2018 for

fast-moving consumer goods (FMCG) companies that do not develop strategies to respond to the risks of environmental pressures.

#### RENEWABLE ENERGY CERTIFICATES

World Resources Institute (WRI). Bottom Line Issue 11. November 2088. 2 pages. http://pdf.wri.org/bottom\_line\_renewable\_energy\_certs.pdf

Renewable Energy Certificates (RECs) provide businesses a means to support renewable energy generation and meet clean energy goals. This fact sheet answers some basic questions about RECs and REC purchasing.

#### THE STATE OF THE NATION'S ECOSYSTEMS 2008: HIGHLIGHTS

The H. John Heinz III Center for Science, Economics and the Environment. November 2008. 44 pages. <a href="http://www.heinzctr.org/ecosystems/2008report/pdf\_files/Highlights\_Final\_low\_res.pdf">http://www.heinzctr.org/ecosystems/2008report/pdf\_files/Highlights\_Final\_low\_res.pdf</a>

The purpose of this report is to lay the groundwork for periodic, high-quality, nonpartisan reporting on the condition and use of U.S. ecosystems, the goal being a stable set of broadly accepted and well-tested indicators. This report describes an established set of ecosystem characteristics across the nation's six principal ecosystem types and includes core national indicators that describe trends across all ecosystems combined. Another important feature is the highlighting of key indicators for which data are not available at the national level.

#### ENVIRONMENTAL INFORMATION: A ROAD MAP TO THE FUTURE

The H. John Heinz III Center for Science, Economics and the Environment. November 2008. 24 pages. <a href="http://www.heinzctr.org/ecosystems/2008report/pdf\_files/Roadmap\_Future\_Report.pdf">http://www.heinzctr.org/ecosystems/2008report/pdf\_files/Roadmap\_Future\_Report.pdf</a>

The United States is facing unprecedented environmental changes, but decision makers do not have the information they need to understand and respond to these changes in a timely fashion. Current environmental stresses, exacerbated by a changing climate, will produce more rapid and less predictable environmental change, requiring managers to respond quickly and creatively, but funding limitations and a fragmented system limit the ability of the nation's environmental monitoring and reporting infrastructure to meet current and future needs.

# REGULATING GLOBAL WARMING: EXPANDING THE AUTHORITY OF THE ENVIRONMENTAL PROTECTION AGENCY

Amanda Berg. National Center for Policy Analysis. October 2, 2008. 2 pages. <a href="http://www.ncpa.org/pub/ba/ba634/ba634.pdf">http://www.ncpa.org/pub/ba/ba634/ba634.pdf</a>

In May 2007, the U.S. Supreme Court decided that greenhouse gases meet the definition of an air pollutant in the Clean Air Act. The Environmental Protection Agency (EPA) responded in 2008 by issuing an Advance Notice of Proposed Rulemaking (ANPR) that explains how the Clean Air Act applies to regulating emissions of greenhouse gases thought to contribute to global warming. The notice will likely be followed by regulations to reduce emissions. Unfortunately, such regulations would significantly increase energy prices, but would not affect the global level of greenhouse gases.

#### CLEAN DEVELOPMENT MECHANISM BACKGROUNDER

The Pew Center on Global Climate Change. October 2008. 4 pages.

#### http://www.pewclimate.org/docUploads/CDM-Backgrounder.pdf

The Clean Development Mechanism (CDM) was established in Article 12 of the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC). It is one of the three "flexibility mechanisms" established by the Kyoto Protocol in an attempt to lower the overall cost of achieving emissions targets by allowing for access to cost-effective opportunities for reducing emissions in other countries. This paper provides background information on the Clean Development Mechanism including key statistics related to CDM projects.

#### CHINA'S PARTICIPATION IN GLOBAL ENVIRONMENTAL NEGOTIATIONS

Huifang Tian and John Whalley. National Bureau of Economic Research (NBER). Working Paper 14460. October 2008. 37 pages.

http://www.nber.org/papers/w14460.pdf

This paper discusses China's participation in both the 2009 Copenhagen negotiations on a post-Kyoto global climate change regime currently under way and out beyond Copenhagen in further negotiations likely to follow. China is now both the largest and most rapidly growing carbon emitter, and has much higher emission intensity relative to GDP than OECD countries. In the Copenhagen negotiation, there will be strong pressure on China to take on emissions reduction commitments and China's concern will be to do so in ways that allow continuation of a high growth rate and fast development.

#### LANDSCAPE PATTERN INDICATORS FOR THE NATION

The H. John Heinz III Center for Science, Economics and the Environment. October 2008. 108 pages. <a href="http://www.heinzctr.org/publications/PDF/Landscape\_Pattern\_Indicators\_12A.pdf">http://www.heinzctr.org/publications/PDF/Landscape\_Pattern\_Indicators\_12A.pdf</a>

This report contains recommendations for a suite of indicators designed to describe broad patterns of landscapes on a national scale. Landscape patterns include naturally-occurring phenomena, such as the intermingling of shrublands and forests, as well as clearly human-created patterns such as the spread of development into previously undeveloped areas. This report includes eight indicators of landscape pattern.

# MISSING PROTECTION: POLLUTING THE MISSISSIPPI RIVER BASIN'S SMALL STREAMS AND WETLANDS

Natural Resources Defense Council (NRDC). Issue Paper. October 2008. 48 pages. http://www.nrdc.org/water/pollution/msriver/msriver.pdf

America's rivers, streams, and small bodies of water have long been protected by the Clean Water Act, but a series of misguided court decisions now put them in danger. Recent interpretations of the law suggest that many waters historically protected from pollution can now be polluted or destroyed without a permitting process to limit the environmental impact of the discharging activity. This loophole is particularly dangerous in relation to the problem of nutrient pollution in the Mississippi River Basin.

### OVER THE LIMIT: EATING TOO MUCH HIGH-MERCURY FISH

Edward Groth. Mercury Policy Project. October 2008. 54 pages.

http://www.oceana.org/fileadmin/oceana/uploads/mercury/reports/OvertheLimit.pdf

This report analyzes 22 methylmercury poisoning cases from 24 patients. These patients experienced mercury poisoning symptoms despite the fact that several had mercury levels generally considered to be

safe. Most of these patients had eaten tuna or swordfish. This report shows the necessity of warning consumers about mercury levels in fish, and encouraging the consumption of lower-mercury seafood.

#### CONSUMPTION, HAPPINESS, AND CLIMATE CHANGE

Resources for the Future (RFF). Discussion Paper 08-39. October 2008. 13 pages.

http://www.rff.org/RFF/Documents/RFF-DP-08-39.pdf

A large literature has developed over the past several years on the economics of happiness. In this paper, the authors we explore the implications of this literature for understanding the relationship between climate change policies and consumption. They identify a number of ways in which accounting for the implications of the new happiness literature could lead to laws and policies that influence consumption in ways that increase the prospects for reducing greenhouse gas emissions in developed and developing countries.

### CURRENT AND POTENTIAL GREEN JOBS IN THE U.S. ECONOMY

United States Conference of Mayors. Brief Analysis No. 634. October 2008. 41 pages. http://www.usmayors.org/pressreleases/uploads/GreenJobsReport.pdf

The economic advantages of the Green Economy include the macroeconomic benefits of investment in new technologies, greater productivity, improvements in the US balance of trade, and increased real disposable income across the nation. They also include the microeconomic benefits of lower costs of doing business and reduced household energy expenditures. These advantages are manifested in job growth, income growth, and of course, a cleaner environment.

### FEELING THE HEAT: GLOBAL WARMING AND RISING TEMPERATURES IN THE UNITED STATES

Emily Figdor. Research & Policy Center. Environment America . October 2008. 48 pages. http://www.environmentamerica.org/uploads/fv/CC/fvCCwMn7-

ObpnTM4uZCVgA/feeling\_the\_heat.pdf

Globally, the year 2007 tied for the second warmest year on record, behind the record warmth of 2005. This warmth is part of a long-term trend toward rising temperatures and extreme weather events resulting from global warming. Global average surface temperatures have increased by more than 1.4°F since the mid-19th century. In 2007, the United Nations' Intergovernmental Panel on Climate Change concluded that the evidence of global warming is "unequivocal" and that human activities are responsible for most of this rise in temperature.

### GUIDELINES FOR CARBON DIOXIDE CAPTURE, TRANSPORT, AND STORAGE

World Resources Institute. October 2008. 148 pages.

http://pdf.wri.org/ccs\_guidelines.pdf

Scenarios for stabilizing climate-forcing emissions suggest atmospheric CO2 stabilization can only be accomplished through the development and deployment of a robust portfolio of solutions, including significant increases in energy efficiency and conservation in the industrial, building, and transport sectors; increased reliance on renewable energy and potentially additional nuclear energy sources; and deployment of Carbon Dioxide Capture and Storage (CCS). The CCS Guidelines effort was initiated to develop a set of preliminary guidelines and recommendations for the deployment of CCS technologies in the United States, to ensure that CCS projects are conducted safely and effectively.

#### **ENERGY SAVINGS CERTIFICATES**

World Resources Institute. Bottom Line Issue 10. October 2008. 2 pages.

http://pdf.wri.org/bottom line energy savings certificates.pdf

Energy savings certificates (ESCs) are used in some states as a mechanism through which third parties, such as commercial and industrial companies, can help utilities comply with energy efficiency targets. This issue explains ESCs and discusses their role in compliance markets.

### HIDDEN RESERVOIR: WHY WATER EFFICIENCY IS THE BEST SOLUTION FOR THE **SOUTHEAST**

American Rivers, Inc. October 2008. 36 pages.

http://www.americanrivers.org/site/DocServer/SE\_Water\_Efficiency\_Oct\_2008\_opt.pdf?docID=8421

The Southeast United States faces unprecedented challenges to its water supply. Growing populations and the impacts of global warming are putting new strains on communities and their rivers. Local leaders are facing the pressing question of how to ensure a clean, reliable water supply for current and future generations. This report makes the case that water efficiency is the best source of affordable water and must be the backbone of water supply planning. By implementing the nine water efficiency policies outlined in this report, communities across the Southeast can secure cost-effective and timely water supply.

#### A LOOMING POLICY DISASTER

Jason Scott Johnston. Cato Institute. Regulation. Fall 2008. 7 pages.

http://www.cato.org/pubs/regulation/regv31n3/v31n3-1.pdf

The recent wave of global warming legislation and litigation represents a triumph for climate change activists. But it is in no way a rational, economically sound response to the problems potentially raised by global warming. Instead, the legislation and litigation seem to be products of an adversarial campaign that has presented a very one-sided and hence misleading story about global warming science, about the likely costs and benefits of global warming on Americans' health and welfare, and about the ability of the United States to act alone to alter possible future paths of global warming.

### PRESERVING AMERICA'S NATURAL HERITAGE: LESSONS FROM STATES' EFFORTS TO FUND OPEN SPACE PROTECTION

Research & Policy Center. Environment America. Fall 2008. 59 pages.

http://www.environmentamerica.org/uploads/nm/Aa/nmAaujsamF2ASSclBOIOlO/Preserving-Americas-Natural-Heritage.pdf

Many states -- and their taxpaying citizens -- have made significant investments in protecting America's open spaces from destructive activities. Nevertheless, America's woods, fields, and meadows are steadily slipping away. Sprawling, unplanned development and mounting pressure to drill, log, and mine the last remaining wilderness areas threaten the health of America's environment and communities. Fortunately, the examples set by existing state land preservation programs hold important lessons for states as they seek to protect their most treasured natural areas. This report profiles the experiences of preservation programs in 15 states as they have striven for consistent and adequate funding for open space protection.